Reply to Office Action of June 2, 2004

Amendments to the Specification:

Please amend paragraph [0048] as shown below:

The results of the vehicle rollback determination is are displayed in column 94. Vehicle rollback occurs when the driver releases both the accelerator and brake pedals with the vehicle at a rest condition on a grade, while the vehicle is in a forward gear 82 and starts rolling backwards, or when the vehicle is in a reverse gear 82 and starts rolling forward. Column 96 displays the results of electronic brake controller comparison of the brake pedal actuation received detected by a brake pedal sensor with a calibratable predetermined force X, measured in pounds per square inch. Column 98 displays the powertrain control module comparison of an accelerator pedal actuation, measured by an accelerator pedal sensor, with a calibratable predetermined percentage value Z. Column 100 displays the internal combustion engine's running state from an engine sensor.

Please amend paragraph [0049] as shown below:

Rows 102 and 134 result in the vehicle in a two footer condition with the engine on and the electro-hydraulic brakes applying <u>a</u> at grade hold torque. The torque applied by the electro-hydraulic brakes applies at the wheel cylinders and is mechanically summed with the total torque request, which is applied additionally. The hill holding strategy maintains the electro-hydraulic brakes at the grade hold torque amount, for example, the amount of torque needed to hold the vehicle on approximately 3% grade. The hill holding strategy calculates the total torque request by summing the accelerator pedal torque request and brake pedal torque request.

Please amend paragraph [0050] as shown below:

When the total torque request is greater than zero, the accelerator pedal torque request at the total torque request amount is added if the magnitude of total torque request is greater than the magnitude of grade hold torque. The hill holding strategy proceeds to the Figure 4 flowchart of the vehicle transition when the engine is on and operator desires to creep the vehicle forward.

Please amend paragraph [0055] as shown below:

Rows 104 and 136 result in the vehicle in a two footer condition with the engine off and the electro-hydraulic brakes applying at a grade hold torque. The hill holding strategy continues to apply the electro-hydraulic brakes at the grade hold torque amount and adds the total torque request as follows.

Please amend paragraph [0070] as shown below:

When the magnitude of the accelerator pedal torque request is greater than the magnitude of grade hold torque, the hill holding strategy proceeds to the Figure 4 flowchart of the vehicle transition when the engine is on and operator desires to creep the vehicle forward.

Please amend paragraph [0072] as shown below:

Row 112 results in the engine off, with an accelerator pedal torque request, and the electro-hydraulic brakes applying at a grade hold torque. Additional accelerator pedal torque request is added as follows.

Please amend paragraph [0092] as shown below:

When the magnitude of the accelerator pedal torque request is greater than or less than the magnitude of grade hold torque, the hill holding strategy proceeds to the Figure 4 flowchart of the vehicle transition when the engine is on and operator desires to creep the vehicle forward.

Please amend paragraph [0101] as shown below:

Referring to Figure 4, flowchart of the vehicle transition when the engine is on and operator desires to creep the vehicle forward is provided.

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Please amend paragraph [0118] as shown below:

Referring to Figure 8, a flowchart of the vehicle transition when the engine is on with no electro-hydraulic brakes and operator desires to creep the vehicle forward is provided.

Please amend paragraph [0121] as shown below:

Next in step 234, the clutch is determined to be fully engaged or not. If the clutch is determined to be fully engaged, then the flowchart strategy returns to the analysis in table 90 of Figure 3. If the electro-hydraulic brake torque is not equal to zero, then the analysis returns to step 230 of the flowchart of the vehicle transition when the engine is on with no electro hydraulic electro-hydraulic brakes and operator desires to creep the vehicle forward.